

**2SC3642**

Ultrahigh-Definition CRT Display Horizontal Deflection Output Applications

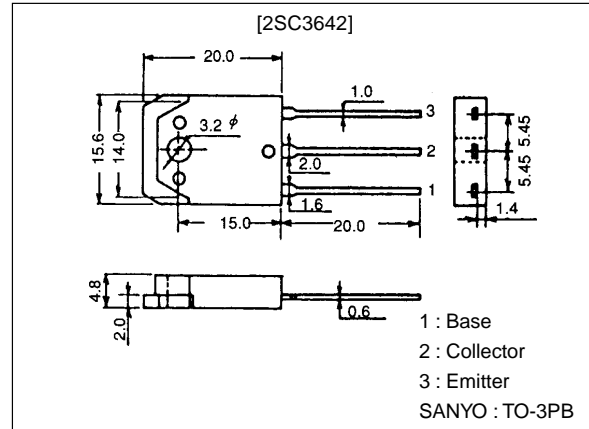
Features

- High reliability (Adoption of HVP process).
- Fast speed.
- High breakdown voltage.
- Adoption of MBIT process.

Package Dimensions

unit:mm

2022A



Specifications

Absolute Maximum Ratings at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V_{CB0}		1200	V
Collector-to-Emitter Voltage	V_{CEO}		800	V
Emitter-to-Base Voltage	V_{EBO}		7	V
Collector Current	I_C		6	A
Collector Current (Pulse)	I_{CP}		12	A
Collector Dissipation	P_C	$T_c=25^\circ\text{C}$	100	W
Junction Temperature	T_j		150	$^\circ\text{C}$
Storage Temperature	T_{stg}		-55 to +150	$^\circ\text{C}$

Electrical Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I_{CB0}	$V_{CB}=800\text{V}, I_E=0$			10	μA
	I_{CES}	$V_{CE}=1200\text{V}, R_{BE}=0$			0.5	mA
Collector-to-Emitter Sustain Voltage	$V_{CEO(sus)}$	$I_C=100\text{mA}, I_B=0$	800			V
Emitter Cutoff Current	I_{EBO}	$V_{EB}=5\text{V}, I_C=0$			1	mA
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=4\text{A}, I_B=0.8\text{A}$			5	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=4\text{A}, I_B=0.8\text{A}$			1.5	V
DC Current Gain	h_{FE}	$V_{CE}=5\text{V}, I_C=0.8\text{A}$	8			
Storage Time	t_{stg}	$I_C=4\text{A}, I_{B1}=0.8\text{A}, I_{B2}=-1.6\text{A}$			3.0	μs
Fall Time	t_f	$I_C=4\text{A}, I_{B1}=0.8\text{A}, I_{B2}=-1.6\text{A}$		0.1	0.2	μs

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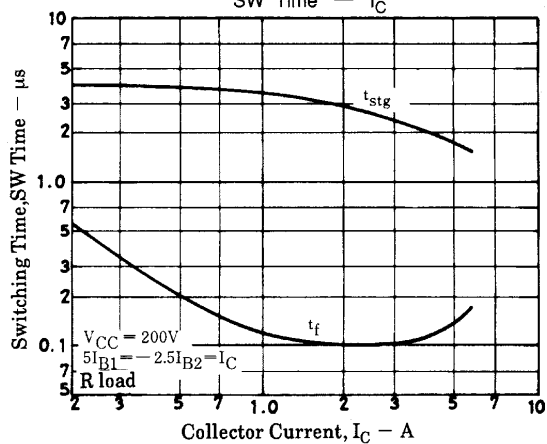
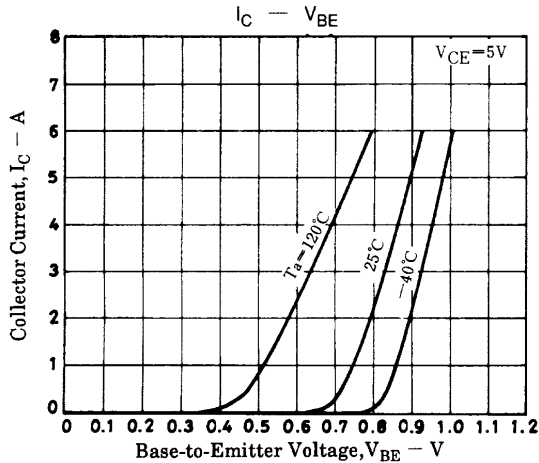
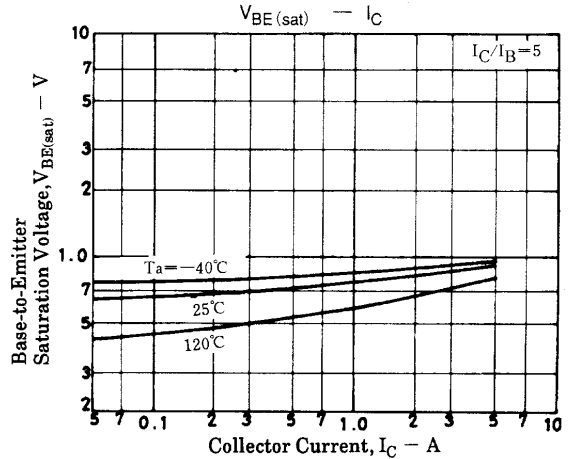
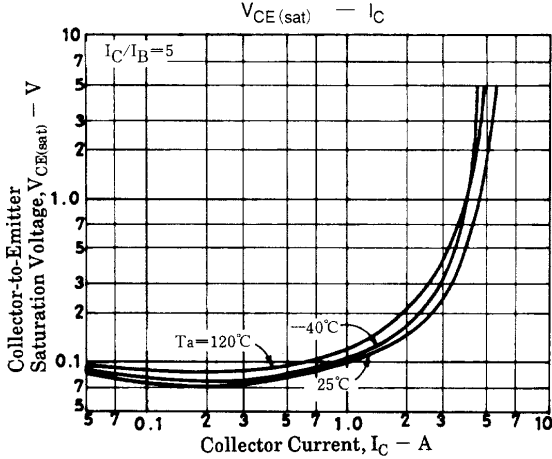
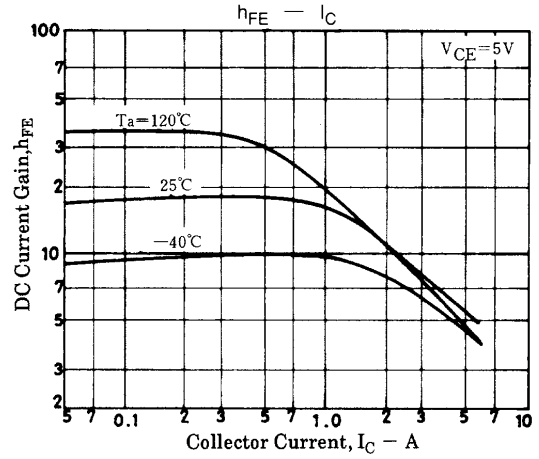
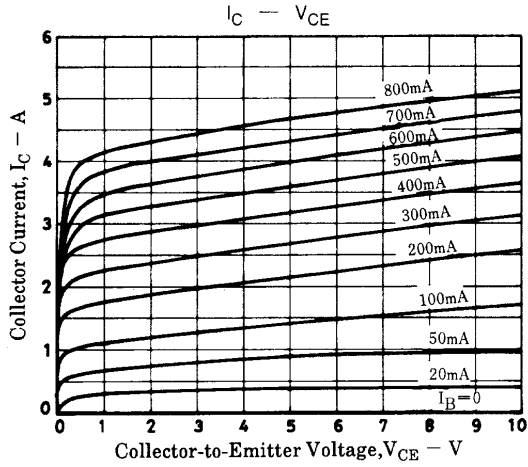
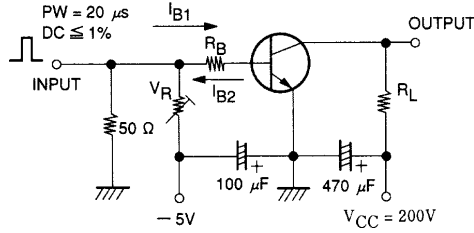
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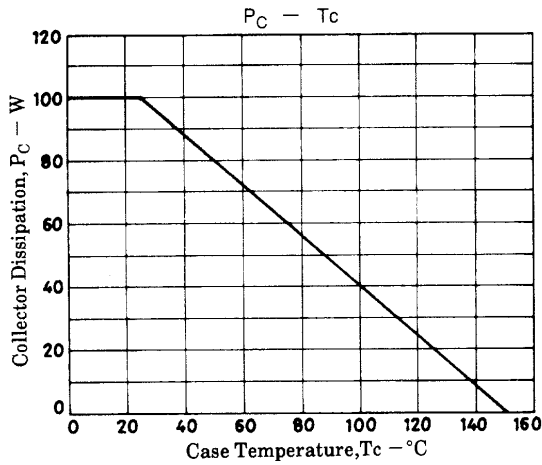
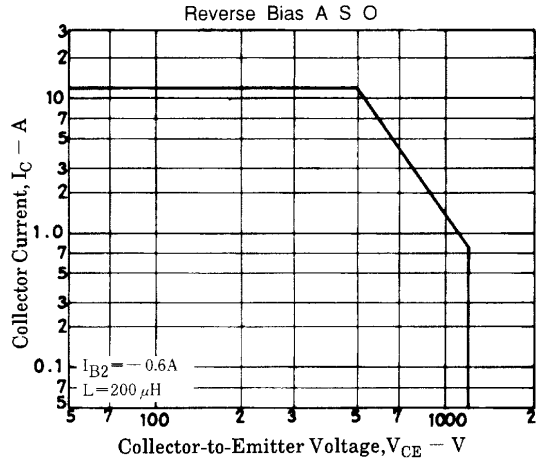
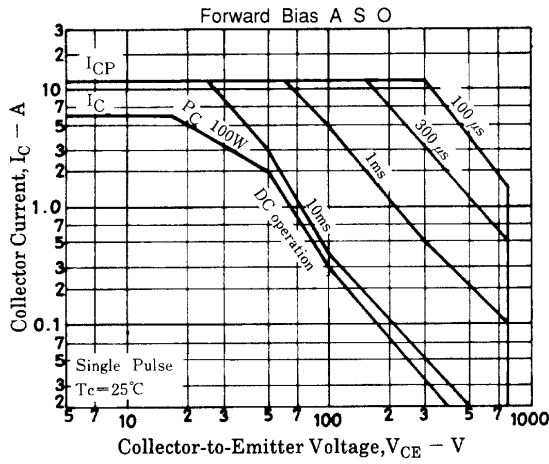
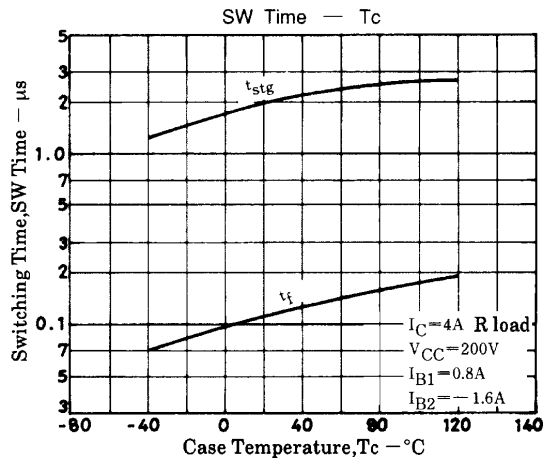
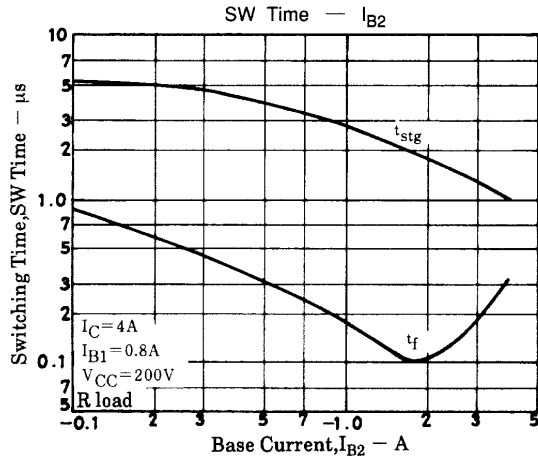
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Switching Time Test Circuit



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